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Your SELECT statement is:
  S NAVIGATION AND (EXIT? OR POI OR POINT) AND SEARCH? AND DISTAN

| Items | File |
|-------|------|
| 9 | 2: INSPEC_1969-2004/Aug W1 |
| 2 | 6: NTIS_1964-2004/Aug W3 |
| 8 | 8: Ei Compendex(R)_1970-2004/Aug W1 |
| 16 | 34: SciSearch(R) Cited Ref Sci_1990-2004/Aug W2 |
| 1 | 81: MIRA - Motor Industry Research_2001-2004/Jul |
| 4 | 94: JICST-EPlus_1985-2004/Jul W3 |
| 3 | 95: TEME-Technology & Management_1989-2004/Jun W1 |
| 1 | 103: Energy SciTec_1974-2004/Jul B2 |
| 5 | 144: Pascal_1973-2004/Aug W1 |
| 1 | 292: GEOBASE(TM)_1980-2004/Aug B1 |

10 files have one or more items; file list includes 18 files.

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T S2/3,KWIC/1-14

**2/3,KWIC/1     (Item 1 from file: 34)**
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci
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09803320   Genuine Article#: 451KH   No. References: 16
 **Title: Homing in wood ants, Formica japonica: Use of the skyline panorama**
Author(s): Fukushi T  (REPRINT)
Corporate Source: Miyagi Univ Educ,Dept Biol, Aoba Ku,Sendai/Miyagi
    9800845/Japan/ (REPRINT); Miyagi Univ Educ,Dept Biol, Aoba
    Ku,Sendai/Miyagi 9800845/Japan/
Journal: JOURNAL OF EXPERIMENTAL BIOLOGY, 2001, V204, N12 (JUN), P20(
ISSN: 0022-0949   Publication date: 20010600
Publisher: COMPANY OF BIOLOGISTS LTD, BIDDER BUILDING CAMBRIDGE C
    PARK COWLEY RD, CAMBRIDGE CB4 4DL, CAMBS, ENGLAND
Language: English   Document Type: ARTICLE   (ABSTRACT AVAILABLE)

Publication date:  20010600
...Abstract: various release sites up to 11 m sideways from the training
    route intersected at a  point  far (approximately 13 m) behind the
    nest. This result suggests that the ants used distant...

...their familiar skyline panorama, they moved in their home direction only
    for an extremely short  distance  (0.1-0.4 m rather than the usual 7.9
    m) and then started a systematic  search  programme, Hence, in the
    present context, skylight information is not used, at least not
    extensively...

**2/3,KWIC/2     (Item 2 from file: 34)**
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.

08649004   Genuine Article#: 312MN   No. References: 18
 **Title: Local appearance space for recognition of navigation landmarks**
Author(s): deVerdiere VC (REPRINT) ; Crowley JL
Corporate Source: INRIA RHONE ALPES,IMAG, LAB GRAVIR, PROJECT PRIMA
    AVE EUROPE/F-38330 MONTBONNOT ST MARTIN//FRANCE/ (REPRINT)
Journal: ROBOTICS AND AUTONOMOUS SYSTEMS, 2000, V31, N1-2 (APR 30)
ISSN: 0921-8890   Publication date: 20000430
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETH
Language: English   Document Type: ARTICLE   (ABSTRACT AVAILABLE)

**Title: Local appearance space for recognition of navigation landmarks**
Publication date:  20000430
...Abstract: axes of a local appearance space. Each local neighborhood of
   an image projects to a  point  in this space. By projecting the set of
   all neighborhoods of a certain size which...

...and associating them with nearby surfaces. To reduce memory
   requirements, we propose an efficient tree- search  algorithm for the
   association of points to surfaces. This algorithm directly produces a
   list of surfaces sorted by  distance from the  point  which represents
   the observed neighborhood.
      Our results show that in many common situations, a single...

...obtain the correct recognition. Furthermore, the confidence of a
   recognition is easily estimated from the  distance  from the  point  to
?□  the surface, and the uniqueness determined by the number of surfaces
   which lie near the  point . Robust recognition is easily obtained by
   reinforcing matching using multiple windows and their mutual spatial...

**2/3,KWIC/3     (Item 3 from file: 34)**
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci

08642475   Genuine Article#: 311BU   No. References: 18
 **Title: An online algorithm for improving performance in navigation**
Author(s): Blum A (REPRINT) ; Chalasani P
Corporate Source: CARNEGIE MELLON UNIV,SCH COMP SCI/PITTSBURGH//P.
   (REPRINT); HBK INVESTMENTS,/NEW YORK//NY/10017
Language: English   Document Type: ARTICLE   (ABSTRACT AVAILABLE)

 **Title: An online algorithm for improving performance in  navigation**
Publication date:  20000418
Abstract: We consider the following scenario. A  point  robot is placed at
   some start location s in a 2-dimensional scene containing oriented...

...following guarantee: in the rst k less than or equal to n trips, the
   average  distance per trip is at most O(root n/k) times the length of

the shortest s-t path in the scene, where n is the Euclidean distance
between s and t. We also show a matching lower bound for deterministic
strategies. These...
...Our algorithm is based on a novel method for making an optimal trade-off
between search effort and the goodness of the path found. We improve
this algorithm to a smooth...


**2/3,KWIC/4     (Item 4 from file: 34)**
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci

08628682   Genuine Article#: BP96X   No. References: 60
**Title: Large-scale navigation: The insect case**
Author(s): Wehner R  (REPRINT)
Corporate Source: UNIV ZURICH,INST ZOOL, WINTERTHURERSTR 190/CH-80
    ZURICH//SWITZERLAND/ (REPRINT)
, 1999, V1661, P1-20
ISSN: 0302-9743   Publication date: 19990000
Publisher: SPRINGER-VERLAG BERLIN, HEIDELBERGER PLATZ 3, D-14197 B
    GERMANYLECTURE NOTES IN COMPUTER SCIENCE
Series: LECTURE NOTES IN COMPUTER SCIENCE
Language: English   Document Type: ARTICLE   (ABSTRACT AVAILABLE)


**Title: Large-scale  navigation : The insect case**
Publication date:  19990000
...Abstract: subterranean burrows for distances of several hundred metres
    by winding their way in a tortuous  search  for food, and then return
    in an amazingly straight line to the starting  point  of their foraging
    trip. Their predominant way of  navigation  is path integration
    including a compass that is based on skylight (polarization) patterns
    · invisible to...
...Identifiers-PATH INTEGRATION; COGNITIVE MAPS; DESERT ANTS;
    CATAGLYPHIS-FORTIS; SPATIAL MEMORY; HONEY-BEES; ROUTE; LANDN
    DISTANCE;  VECTORS


**2/3,KWIC/5     (Item 5 from file: 34)**
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci

06690236   Genuine Article#: ZK763   No. References: 6
**Title: The Connectivity Server: fast access to linkage information on the**

**Web**

Author(s): Bharat K; Broder A; Henzinger M (REPRINT) ; Kumar P; Venkatasubramanian S
Corporate Source: DIGITAL EQUIPMENT CORP,SYST RES CTR, 130 LYTTON /
  ALTO//CA/94301 (REPRINT); DIGITAL EQUIPMENT CORP,SYST RES CTR/P
  ALTO//CA/94301; STANFORD UNIV,DEPT COMP SCI/PALO ALTO//CA/94301

Publication date:  19980400
...Abstract: have built a server that provides linkage information for all
  pages indexed by the AltaVista  search  engine. In its basic operation,
  the server accepts a query consisting of a set L of one or more URLs
  and returns a list of all pages that  point to pages in L
  (predecessors) and a list of all pages that are pointed to...
...produce the entire neighbourhood tip the graph theory sense) of L up to
  a given  distance  and can include information about all links that
  exist among pages in the neighbourhood.

      Although some of this information can be retrieved directly from
Alta Vista or other  search  engines, these engines are not optimized
for this purpose and the process of constructing the...

...have built two applications that use the Connectivity Server: a direct
  interface that permits fast  navigation  of the Web via the
  predecessor/successor relation, and a visualization tool for the
  neighbourhood...


**2/3,KWIC/6     (Item 6 from file: 34)**

06130811   Genuine Article#: XX103   No. References: 17
**Title: Time-optimal smooth-path motion planning for a mobile robot with
  kinematic constraints**
Author(s): Jiang K (REPRINT) ; Seneviratne LD; Earles SWE
Corporate Source: UNIV LONDON KINGS COLL,DEPT MECH ENGN/LONDON V
  2LS//ENGLAND/ (REPRINT)

ISSN: 0263-5747  Publication date: 19970900
Publisher: CAMBRIDGE UNIV PRESS, 40 WEST 20TH STREET, NEW YORK, N
   10011-4211
Language: English  Document Type: ARTICLE  (ABSTRACT AVAILABLE)

Publication date:  19970900
...Abstract: Further, it derives a minimum time first derivative smooth
   path, as opposed to a minimum  distance  path which is commonly given
   by various present solution techniques. The problem is solved in three
   stages: (i) A reduced visibility graph for a  point  object is
   obtained. (ii) The reduced visibility graph is converted into a
   feasible reduced visibility...

...the size and kinematic constraints of the robot. (iii) The A* algorithm
   is used to  search  the feasible reduced visibility graph with the cost
   function being the time of travel, to...
Research Fronts: 95-1992 003  (MOTION PLANNING OF MOBILE ROBOTS; FA:
   COLLISION DETECTION; REAL-TIME  NAVIGATION ; POLYGONAL OBSTAC
   REINFORCEMENT LEARNING)


**2/3,KWIC/7    (Item 7 from file: 34)**
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci

06098665  Genuine Article#: XU758  No. References: 54
 **Title: Landmark stability: Further studies pointing to a role in spatial ?
   learning**
Author(s): Biegler R (REPRINT) ; Morris RGM
Corporate Source: UNIV EDINBURGH,CTR NEUROSCI/EDINBURGH EH8
   9LE/MIDLOTHIAN/SCOTLAND/ (REPRINT); UNIV EDINBURGH,DEPT
   PHARMACOL/EDINBURGH EH8 9LE/MIDLOTHIAN/SCOTLAND/
Journal: QUARTERLY JOURNAL OF EXPERIMENTAL PSYCHOLOGY SECTION
   AND PHYSIOLOGICAL PSYCHOLOGY, 1996, V49, N4 (NOV), P307-345
ISSN: 0272-4995  Publication date: 19961100
Publisher: PSYCHOLOGY PRESS, 27 CHURCH RD, HOVE, EAST SUSSEX, EN
   2FA
Language: English  Document Type: ARTICLE  (ABSTRACT AVAILABLE)

Publication date:  19961100
...Abstract: to investigate the possible role of landmark stability in
   spatial learning. Rats were trained to  search  in a large arena for
   food hidden at a consistent  distance  and direction from either a

single radially symmetric landmark or an array of two landmarks...

...food being available given either cue. Experiment I used vestibular disorientation to ensure control of search location by experimenter-controlled cues. The results showed that making either a single landmark or...

...of two adjacent landmarks the sole spatial predictor of reward location reduced the accuracy of search compared to a condition where both the landmark array and context cues were reliable spatial...

...had no effect when training was conducted using an array of two landmarks located some distance from each other. Context cues, when tested alone, triggered very little searching in appropriate locations, and the absolute magnitude of control over search was insufficient to account for the superiority of stable landmarks. The better learning with a...

...describe two experiments concerned with identifying the psychological processes of allocentric spatial learning. The results point to the idea that landmark stability is an important factor in spatial learning. Specifically, they...
...Identifiers--HEAD-DIRECTION CELLS; PIGEONS USE; VISUAL LANDMARKS; PERFORMANCE; MEMORY; RATS; NAVIGATION; CUES; BEES; PSYCHOF

**2/3,KWIC/8    (Item 8 from file: 34)**
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.

05751268   Genuine Article#: WV450   No. References: 30
 **Title: Robot pose estimation in unknown environments by matching 2D rang scans**
Author(s): Lu F (REPRINT) ; Milios E
Corporate Source: YORK UNIV,DEPT COMP SCI/N YORK/ON M3J 1P3/CANAD/ (REPRINT)
Journal: JOURNAL OF INTELLIGENT & ROBOTIC SYSTEMS, 1997, V18, N3 (M/ 249-275
ISSN: 0921-0296   Publication date: 19970300
Publisher: KLUWER ACADEMIC PUBL, SPUIBOULEVARD 50, PO BOX 17, 330C DORDRECHT, NETHERLANDS
Language: English   Document Type: ARTICLE   (ABSTRACT AVAILABLE)

Publication date:  19970300
...Abstract: is based on matching data points with tangent directions in
   two scans and minimizing a  distance  function in order to solve the
   displacement between the scans. The second algorithm establishes
   correspondences between points in the two scans and then solves the
   point -to- point  least-squares problem to compute the relative pose of
   the two scans. Our methods work...
?□.Identifiers--REGISTRATION;  NAVIGATION;  IMAGES
...Research Fronts: BREAKDOWN POINTS)
   95-1992 001   (MOTION PLANNING OF MOBILE ROBOTS; FAST COLLISION
      DETECTION; REAL-TIME  NAVIGATION ; POLYGONAL OBSTACLES; REINF
      LEARNING)


**2/3,KWIC/9     (Item 1 from file: 81)**
DIALOG(R)File  81:MIRA - Motor Industry Research
(c) 2004 MIRA Ltd. All rts. reserv.


42057
   **A Profile of Drivers' Map-Reading Abilities**
STREETER LA; et al
Corporate Source: Bell Commun Res
Human Factors, Apr 86
April 1, 1986
Page            : 223
Collation       : (17 p, 11 fig, 15 ref)

Document Type: JOURNAL  Language: ENGLISH
Record Type: ABSTRACT
Supplier Record Type: AA

To create better aids for everyday surface  navigation , people's
navigational preferences, habits, experiences, abilities, and
route-selection strategies were examined. Self-described...

...varying degrees of familiarity with an area were compared with routes
generated by standard graph- search  procedures. A shorest-path,
breadth-first route characterised half of the "expert" routes, whereas none
of the graph- search  procedures matched "intermediate" and "novice"
routes. A good predictor of whether people chose a particular road was
whether the sum of A + B + C (where A equals the straight-line  distance
from the start to the road, B equals the  distance  travelled on the road,
and C equals the straight-line  distance  from the departure  point  on the

road to the destination) did not exceed the straight-line  distance
between start and destination by more than about 20%. (Auth)


**2/3,KWIC/10    (Item 1 from file: 95)**
DIALOG(R)File  95:TEME-Technology & Management
(c) 2004 FIZ TECHNIK. All rts. reserv.

01420277 20000509189
**Local appearance space for recognition of navigation landmarks**
Verdiere, VCde; Crowley, JL
Lab. GRAVIR-IMAG, Inst. Nat. de Recherche en Inf. et Autom., Montbonnot
Saint Martin, F
Proceedings of 6th International Symposium on Intelligent Robotic Systems
'98, 21-23 July 1998, Edinburgh, UKRobotics and Autonomous Systems, v31,
n1-2, pp61-69, 2000
Document type: journal article; 06 Conference paper  Language: English
Record type: Abstract
ISSN: 0921-8890


**Local appearance space for recognition of  navigation  landmarks**
2000

ABSTRACT:
...and associating them with nearby surfaces. To reduce memory
requirements, we propose an efficient tree- search  algorithm for the
association of points to surfaces. Our experimental results show that in
many...
...obtain the correct recognition. Furthermore, the confidence of a
recognition is easily estimated from the  distance  from the  point  to the
surface, and the uniqueness determined by the number of surfaces which lie
near the  point .
IDENTIFIERS: RECHNERUNTERSTUETZTE  NAVIGATION ; HAUPTKOMPONE
PRINZIPIELLE KOMPONENTENANALYSE; Mobiler Roboter; Objekterkennung


**2/3,KWIC/11    (Item 2 from file: 95)**
DIALOG(R)File  95:TEME-Technology & Management
(c) 2004 FIZ TECHNIK. All rts. reserv.

00982696 M96040220667
**Robots for anti-personnel mine search**
(Mobile Roboter fuer die automatische Minensuche)

Nicoud, J-D; Maechler, P
Swiss Federal Inst. of Technol., Lausanne, CH

**Robots for anti-personnel mine  search**
1996

ABSTRACT:
...60 nations. Well trained dogs are efficient for localizing mines, but
they tire quickly. Manual  searching , by prodding the ground, is used in
demining campaigns, at an average cost of USD...

...The Pemex-B is a simple design with two driving wheels and a third
supporting  point  where the mines are sensed.  Navigation  software has
been tested on reduced-scale models. A larger model participated in the IAV
...
DESCRIPTORS: MILITARY ENGINEERING; AUTONOMOUS ROBOTS; OBJEC1
REMOTELY PILOTED VEHICLES;  DISTANCE  MEASUREMENT; COMPASSES
RESULTS
IDENTIFIERS: MINENSUCHGERAET; MEHRSENSORSYSTEM; HODOMETER;
POSITIONIERUNGSSYSTEM; Minensuchgeraet; Roboter; ferngelenktes Fahrzeu(
Navigation


 **2/3,KWIC/12    (Item 3 from file: 95)**

00703978 I93068944927
 **Two-dimensional robot navigation among unknown stationary polygonal
obstacles**
(Orientierung eines zweidimensionalen Roboters zwischen unbekannten,
stationaeren polygonalen Hindernissen)
Foux, G; Heymann, M; Bruckstein, A
Dept. of Comput. Sci., Technion-Israel Inst. of Technol., Haifa, Israel

## Two-dimensional robot navigation among unknown stationary polygonal obstacles
1993

ABSTRACT:
...all of which are initially unknown to the robot. The environment is learned during the navigation process by use of a laser range-finding device, and new knowledge is integrated with...
...a new set of expanded polygonal obstacles, allowing the robot to be treated as a point , and the navigation problem is reduced to point navigation among unknown polygonal obstacles. A navigation graph is built from the transformed obstacles and used to search for a piecewise linear path to the destination. The algorithm is proved to converge to...
...DESCRIPTORS: ARTIFICIAL INTELLIGENCE; ORIENTATION; DISTANCE MEASUREMENT; LASER APPLICATIONS; CURVES...
IDENTIFIERS: OBSTACLE AVOIDANCE; UNKNOWN STATIONARY POLYGON/ LASER RANGE FINDING DEVICE; NAVIGATION GRAPH; PIECEWISE LINEAF zweidimensionaler Roboter; Navigation


**2/3,KWIC/13     (Item 1 from file: 103)**

04147892  KR-97-000108; EDB-97-056596
  **Title: A landmark position estimation method using a color image for an indoor mobile robot**
Author(s): Yu, Won Pil;  Chung, Myung Jin (KAIST, Taejon (Korea, Republic of))
Source: Chongi Hakhoe Nonmunchi  (Transactions of the Korean Institute of Electrical Engineers)  v 45:2.  Coden: CHNODD  ISSN: 0254-4172
Publication Date: Feb 1996
p 310-318
Language: Korean


Publication Date: Feb  1996
...Abstract: color image is presented. The mobile robot(K2A) takes an image of a corridor and  searches  for the door and pillar, which are the
?□ given landmarks. The color information is used...


...represent the presence of the landmarks, Image Mode is defined. This method adopts Kullback information  distance . If a landmark is detected, with the color information, the mobile robot identifies the

vertical line of the landmark and its crossing point and an experimental navigation is performed. (author). 13 refs., 12 figs., 9 tabs.


**2/3,KWIC/14     (Item 1 from file: 292)**
DIALOG(R)File 292:GEOBASE(TM)

01185740     SUPPLIER NO. 2482101
**Navigating desert ants (Cataglyphis fortis) learn to alter their search patterns on their homebound journey**
Cheng K.; Wehner R.

ADDRESS: K. Cheng, Department of Psychology, Macquarie University, Sydney, NSW 2109, Australia
EMAIL: kcheng@axon.bhs.mq.edu.au

Physiological Entomology, 27/4 (285-290), 2002
COUNTRY OF PUBLICATION: United Kingdom
ISSN: 0307-6962
DOCUMENT TYPE: Journal; Article
LANGUAGES: English     SUMMARY LANGUAGES: English
NO. OF REFERENCES: 15

...run off a global vector estimated on their outbound journey, and then engage in systematic search consisting of ever-increasing loops interrupted by returns to the starting point of search , Desert ants (Cataglyphis fortis; Wehner, 1983) were trained to travel 6 m down a channel...

...estimate of the length of the global vector calculated on their outbound trip. The median distance of search on a 5-min test gave an estimate of the centre of the search pattern. Relative to controls, the experimental ants did not increase their estimated length of global vector, but changed their search patterns, searching on average further from the start than the controls. Tests of the outbound journey, however, revealed no differences between groups. Desert ants can learn to modify their search pattern based on experience.

DESCRIPTORS:
ant; navigation ; learning
?

**2/7/10    (Item 1 from file: 95)**

 **Local appearance space for recognition of navigation landmarks**

Verdiere, VCde; Crowley, JL
Lab. GRAVIR-IMAG, Inst. Nat. de Recherche en Inf. et Autom., Montbonnot
Saint Martin, F

ABSTRACT:
This paper presents a technique for visual recognition in which the
appearance of objects is represented by families of surfaces in a local
appearance space. An orthogonal family of local appearance descriptors is
obtained by applying principal components analysis to small image windows.
These descriptors define the axes of a local appearance space. Visual
landmarks may be recognized by projecting windows from newly acquired
images into the descriptors space and associating them with nearby
surfaces. To reduce memory requirements, we propose an efficient
tree-search algorithm for the association of points to surfaces. Our
experimental results show that in many common situations, a single window
is sufficient to obtain the correct recognition. Furthermore, the
confidence of a recognition is easily estimated from the distance from the
point to the surface, and the uniqueness determined by the number of
surfaces which lie near the point.
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**2/7/4     (Item 4 from file: 34)**
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci

08628682   Genuine Article#: BP96X   Number of References: 60
 **Title: Large-scale navigation: The insect case**
Author(s): Wehner R  (REPRINT)
Corporate Source: UNIV ZURICH,INST ZOOL, WINTERTHURERSTR 190/CH-805
    ZURICH//SWITZERLAND/ (REPRINT)
, 1999, V1661, P1-20
ISSN: 0302-9743   Publication date: 19990000
Publisher: SPRINGER-VERLAG BERLIN, HEIDELBERGER PLATZ 3, D-14197 BE
    GERMANYLECTURE NOTES IN COMPUTER SCIENCE
Series: LECTURE NOTES IN COMPUTER SCIENCE
Language: English   Document Type: ARTICLE
Abstract: Despite their miniature, 0.1-mg brains Cataglyphis ants of the
    Sahara desert are particularly impressive navigators. They leave their
    subterranean burrows for distances of several hundred metres by winding
    their way in a tortuous search for food, and then return in an
    amazingly straight line to the starting point of their foraging trip.
    Their predominant way of navigation is path integration including a
    compass that is based on skylight (polarization) patterns invisible to
    man. Path integration is supplemented by landmark guidance for finally
    pin-pointing the goal. In this context, matching of retinotopically
    fixed panoramic views ("snapshots") and local vectors accompanying
    such views are further components of the ant's navigational toolkit.
    Behavioural and neurobiological analyses reveal that in the insect's
    cockpit - its brain - a high-level task is accomplished by the
    collective interaction of a number of low-level modules.
?